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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,778	11/18/2002	Bryan Metts	30GF-9121	2412
23465 7590 04/26/2007 JOHN S. BEULICK C/O ARMSTRONG TEASDALE, LLP ONE METROPOLITAN SQUARE SUITE 2600 ST LOUIS, MO 63102-2740			EXAMINER HO, DUC CHI	
			ART UNIT	PAPER NUMBER
			2616	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/26/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/065,778

Applicant(s)

METTS ET AL.

Examiner

Duc C. Ho

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Objections

1. Claims 6, and 10 are objected to because of the following informalities: Claim 6 appears to have the phrase "comprises providing a CPU configured for a PLC" redundant. Claim 10 has the word without written as "with out".

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).
4. Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over the APA, in view of Holmes et al. (US 6,636,749), hereinafter referred to as Holmes.

Regarding claim 1, the APA discloses a programmable logic controller (PLC) wireless communication system 10-fig.1.

providing a central processing unit (CPU) configured for a programmable logic controller (PLC) including a PLC module bus for coupling at least one PLC module to the CPU (a CPU (not shown) is mounted on the CPU card 14-fig.1 for a programmable logic controller (PLC) wireless communication system 10-fig.1, and a PLC module bus (not shown) for communication between the at least one PLC module 16-fig.1 and the CPU is included, see par. 0015);

the CPU is mounted on a backplane of a rack (the CPU (not shown) mounted on the CPU card 14 on a backplane 12-fig.1 of a rack);

The APA, however, does not expressly teach (1) a means for wireless radio frequency communications, and (2) the means and the CPU communicate without using the PLC module bus.

One skill in the art would recognize the advantage of employing a means for wireless radio frequency communications into the Programmable Logic Controller (PLC), i.e: such as a Bluetooth module mounted on the CPU of the PLC-fig.1, so that the Bluetooth module could communicate with the CPU without using the PLC module bus, and thus providing the CPU capability to communicate with a wireless device within the backplane or with another device belonging to another backplane within a rack.

Holmes discloses method and apparatus for providing power and wireless protocol capability to a wireless device, such as a wireless phone. The Bluetooth module 106-fig.2 includes a transceiver in order to facilitate the exchange of

communication signals wirelessly between the module and the wireless phone 110-fig.1, see col. 5, lines 2-13.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the APA with Holmes.

The suggestion/motivation for doing so would have been to provide the CPU capability to communicate with a wireless device within the backplane or with another device belonging to another backplane within a rack.

Therefore, it would have been obvious to combine the APA with Holmes to obtain the invention as specified in claim 1.

Regarding claims 2, and 20, as discussed in claim 1, the Bluetooth module 106-fig.1 of Holmes is to be mounted on top of the CPU and the CPU card 14-fig.1 of the APA.

Regarding claims 3, 11, and 16, in Holmes the module 106-fig.1 provides a Bluetooth protocol transmitter/receiver.

Regarding claims 4, 12, and 17, in Holmes the module 106-fig.1 provides and IEEE 802.11 protocol transmitter/receiver.

Regarding claims 5, 13, and 18, in Holmes the module 106-fig.1 is capable of providing a cellular protocol transmitter/receiver.

Regarding claims 6, 14, and 19, in the APA the CPU (not shown) mounted on the CPU card-fig.1 constitutes a Network Interface Unit.

Regarding claim 7, this claim has similar limitations as claim 1. Therefore, it is rejected under the APA-Holmes for the same reasons set forth in the rejection of claim 1.

Regarding claim 8, as discussed in claim 1, the CPU of the APA and the Bluetooth module 106-fig.1 of Holmes are both mounted on a CPU card 14-fig.1 of the APA.

Regarding claim 9, this claim has similar limitations as claim 1. Therefore, it is rejected under the APA-Holmes for the same reasons set forth in the rejection of claim 1.

Regarding claim 10, as discussed in claim 1. The backplane of the APA includes a module bus, and the CPU-fig.1 communicates with a module connected to the backplane via the module connector 16-fig.1. The CPU-fig.1 of the APA and the module 106-fig.1 of Holmes communicates to each other without using the module bus.

Regarding claim 15, this claim has similar limitations as claim 1. Therefore, it is rejected under the APA-Holmes for the same reasons set forth in the rejection of claim 1.

Regarding claim 21, please see the rejection of claim 1. The Bluetooth module 106-fig.1 of Holmes mounted on the CPU-fig.1 of the APA could be configured in a rack in addition to a power supply, a CPU board, and a controlled input/output module.

Response to Arguments

5. Applicant's arguments with respect to claims 1-21 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc Ho whose telephone number is (571) 272-3147.

The examiner can normally be reached on Monday through Friday from 7:00 am to 3:30 pm.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin, can be reached on (571) 272-3134.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc Ho whose telephone number is (571) 272-3147.

The examiner can normally be reached on Monday through Friday from 7:00 am to 3:30 pm.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin, can be reached on (571) 272-3134.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner

A handwritten signature in black ink, appearing to read "Duc Ho", with a horizontal line extending from the end of the signature.

Duc Ho

04-23-07